



University of Groningen

Fabrication of metallic nanostructures with ions

Ribas Gomes, Diego

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Ribas Gomes, D. (2018). Fabrication of metallic nanostructures with ions: Theoretical concepts and applications. [Groningen]: University of Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Stellingen

Behorende bij het proefschrift

Fabrication of metallic nanostructures with ions

door

Diego Ribas Gomes

9 Oktober 2018

1. Micro-sized metallic cantilevers can be folded in a controlled fashion by appropriate ion irradiation.
2. The generation of isolated point defects and deposition of Ga from the ion beam using FIB cannot explain the bending phenomenon.
3. Ion-induced bending of nanoporous gold cantilevers occurs at a higher rate per fluence than solid gold cantilevers and is governed by densification of the irradiated surface region.
4. The effective elastic modulus of a nanoporous structure is defined by the network connectivity, with a non-monotonic dependence on average ligament size.
5. The consideration of nanoporous materials for radiation-resistant, e.g. nuclear applications must take into account the dimensional instability resulting from radiation-induced coarsening and/or sintering.
6. It is much easier to do measurements than to know what you are measuring. (Jeff Th.M. DeHosson)
7. O estranho é que o cérebro, feito essencialmente para produzir ideias, exulta quando tem uma. (Millôr Fernandes)
8. Scire tuum nihil est, nisi te scire hoc sciat alter (Aulus Persius Flaccus)
9. History of science shows the second-order phase transformation of scientists from truth-arbiters to gold-diggers.
10. When reading simulation studies, one must always inquire whether it is a fantastic paper or a fantasy paper. (Jeff Th.M. DeHosson)